COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

FIRST SET OF INFORMATION REQUESTS OF NSTAR GAS COMPANY TO THE DIVISION OF PIPELINE ENGINEERING AND SAFETY
D.T.E. 05-36
November 16, 2005

Person Responsible: Christopher Bourne

Information Request: NSTAR 1-31

Please identify all Department and federal pipeline regulations that apply to corrosion monitoring requirements for service lines in the basement of a residential dwelling that is not located in a business district. Please provide all documents to support the Division's interpretation of the identified regulations.

Response

The federal pipeline safety regulations relating to corrosion monitoring of metallic pipelines are contained in Subpart I of 49 C.F.R. Part 192, Subpart I: Requirements for corrosion control. These regulations do not differentiate between pipelines located in business districts and pipelines located outside of business districts. In addition, the regulations do not differentiate between pipelines located in the basement of any kind of building and pipelines located anywhere else. The federal requirements are the same no matter where the pipeline is located.

The federal regulations which set the minimum requirement for corrosion control of service lines are identified below. They are contained in 49 C.F.R. Part 192, Subpart I: "Requirements for Corrosion Control."

§192.451: Scope.
§192.452: Applicability to converted pipelines.
§192.453: General.
§192.455: External corrosion control: Buried or submerged pipelines installed after July 31, 1971.
§192.457: External corrosion control: Buried or submerged pipelines installed before August 1, 1971.
§192.459: External corrosion control: Examination of buried pipeline when exposed.
§192.461: External corrosion control: Protective coating.
§192.463: External corrosion control: Cathodic protection
§192.465: External corrosion control: Monitoring.
§192.467 External corrosion control: Electrical isolation.
§192.469: External corrosion control: Test stations.
§192.471 External corrosion control: Test leads.
§192.473: External corrosion control: Interference currents.

§192.475: Internal corrosion control: General.
§192.477: Internal corrosion control: Monitoring.
§192.479: Atmospheric corrosion control: General.
§192.481: Atmospheric corrosion control: Monitoring.
§192.483: Remedial measures: General.
§192.491: Corrosion control records.

The regulation in place at the time of the incident (i.e., July 24, 2002) read as follows:

> "After meeting the requirements of § 192.479 (a) and (b), each operator shall, at intervals not exceeding 3 years for onshore pipelines and at least once each calendar year, but with intervals not exceeding 15 months, for offshore pipelines, reevaluate each pipeline that is exposed to the atmosphere and take remedial action whenever necessary to maintain protection against atmospheric corrosion."

49 C.F.R. § 192.481.

This federal regulation, 49 C.F.R. § 192.481, was amended effective September 15, 2003:

> "(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:
>
> | If the pipeline is located: | Then the frequency of inspection is: |
> | --- | --- |
> | Onshore | At least once every 3 calendar years, but with intervals not exceeding 39 months" |

49 C.F.R. § 192.481.

A second federal regulation, also amended post-incident (i.e., after July 24, 2002), applies.

> "(a) Pipelines installed after July 31, 1971. Each aboveground pipeline or portion of a pipeline installed after July 31, 1971 that is exposed to the atmosphere must be cleaned and either coated or jacketed with a material suitable for the prevention of atmospheric corrosion. An operator need not comply with this paragraph, if the operator can demonstrate by test, investigation, or experience in the area of application, that a corrosive atmosphere does not exist.
> (b) Pipelines installed after August 1, 1971. Each operator having an above-ground pipeline or portion of a pipeline installed before August 1, 1971 that is exposed to the atmosphere, shall –
> (1) Determine the areas of atmospheric corrosion on the pipeline;
> (2) If atmospheric corrosion is found, take remedial measures to the extent required by the applicable paragraphs of §§ 192.485, 192.487, or 192.489; and
> (3) Clean and either coat or jacket the areas of atmospheric corrosion on the pipeline with a material suitable for the prevention of atmospheric corrosion."

49 C.F.R. § 192.479.

Effective September 15, 2003, this federal regulation, 49 C.F.R. § 192.479, was amended to read:

> "(a) Each operator must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.
> (b) Coating material must be suitable for the prevention of atmospheric corrosion.
> (c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, the operator need not protect from atmospheric corrosion any pipeline for which the operator demonstrates by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will --
>
> (1) Only be a light surface oxide; or
> (2) Not affect the safe operation of the pipeline before the next scheduled inspection."

49 C.F.R. § 192.479.

The portion of the pipeline that was located in the basement of 65 Main Street, Hopkinton was exposed to the atmosphere, located onshore, and a portion of a service line. The U.S. Department of Transportation/Office of Pipeline Safety ("OPS") has stated that service lines must be inspected for atmospheric corrosion. This interpretation is contained in a July 15, 1993 letter from Cesar DeLeon, Director, Regulatory Programs, for the Office of Pipeline Safety ("OPS"). The letter states in the relevant part:

> "The regulations governing the transportation of gas by pipeline are in 49 CFR Part 192. These regulations do not contain inspection requirements that apply specifically to customer meter sets. However, because customer meter sets are part of service lines, the sets are subject to the same inspection requirements as service lines. These requirements include monitoring for atmospheric corrosion under §192.481 and periodic leakage surveys under §192.723."

The letter is attached as Exhibit NSTAR 1-31(A).

In 2002, OPS denied a waiver that the Michigan Public Service Commission had granted to Consumers Energy Company ("Consumers"). This waiver would have exempted Consumers from complying with the atmospheric corrosion inspection requirements for interior piping located upstream of the meter. The denial is contained in a November 25, 2002 letter from Stacey Gerard, Associate Administrator for Pipeline Safety. The letter is attached as Exhibit NSTAR 1-31(B).

Department regulation 220 C.M.R. 101.01: Compliance with MFS Standards, requires operators to comply with 49 C.F.R. Part 192.

Please see responses to information requests NSTAR 1-20 and 1-21.

Interpretation 192.481 2 of 2

July 15, 1993

Mr. Gerald F. Classen
K N Energy, Inc.
300 N. St. Joseph Avenue
P.O. Box 608
Hastings, NE 68902-0608

Dear Mr. Classen:

Ed Ondak of our Western Region Office has asked me to respond to your letter of June 1, 1993. You asked if it is necessary to inspect and maintain records on individual (single customer) meter sets off high pressure (50 psi and above) distribution lines.

The regulations governing the transportation of gas by pipeline are in 49 CFR Part 192. These regulations do not contain inspection requirements that apply specifically to customer meter sets. However, because customer meter sets are part of service lines, the sets are subject to the same inspection requirements as service lines. These requirements include monitoring for atmospheric corrosion under §192.481 and periodic leakage surveys under §192.723.

Records of corrosion inspections are required by §192.491, and §192.603(b) requires records of leakage surveys. These records may cover pipelines as a whole, and need not identify specific parts of the pipeline, such as customer meter sets.

Sincerely,

Cesar De Leon
Director, Regulatory Programs
Office of Pipeline Safety

Waiver 192.481 1

November 25, 2002

Mr. Paul Proudfoot Supervisor, Gas Safety Program
Michigan Public Service Commission
Lansing, MI 48909-7721

Dear Mr. Proudfoot:

We have considered your letter of September 20,2002, notifying us that the Commission granted the Consumers Energy Company a waiver from compliance with 49 CFR 192.481 and 192.723(b)(2) for portions of residential service lines located inside buildings upstream from the outlet of customer meters. Section 192.481 requires operators to reevaluate every 3 years the need for atmospheric corrosion control on exposed pipelines. Section 192.723(b)(2) requires operators to conduct leakage surveys, using leak detection equipment, on distribution lines located outside business districts every 5 years or, if the pipeline is buried or submerged and not cathodically protected, every 3 years.

The justification for waiver of § 192.481 is that atmospheric corrosion on interior portions of residential service lines is a slow process that rarely results in leaks. Also, on interior portions of service lines, a leakage survey is generally the only practical method of evaluating the need to control atmospheric corrosion. If a leak were to occur, it would be microscopic and smelled by meter readers, who are regularly in the vicinity of the piping. The company would annually test and certify its meter readers as capable of smelling gas at a safe level or provide those readers not certified with a gas monitor set at 5 percent of the lower explosive limit. The waiver of § 192.723(b)(2) is similarly justified by the likelihood that leaks would be detected sooner through monthly visits of meter readers than by checking for leaks once every 5 years with leak detection equipment. Any meter reader who smells gas would report the problem immediately for further investigation.

After considering the justification, we believe more substantiation is needed to assure the waiver is consistent with pipeline safety. The purpose of § 192.481 is to require evaluation of the need for corrosion control before leakage occurs. The same meter readers Consumers might assign to sniff the air for gas could just as readily visually examine the meter and observable interior piping for rust. The waiver does not explain why Consumers will not use its meter readers to make such examinations. For piping that is walled in or otherwise not readily observable, there may be no practical way to comply with § 192.481.

As to § 192.723(b)(2), the waiver does not substantiate to our satisfaction that relying on the ability of meter readers to smell leaking gas would provide a level of safety equivalent to compliance with § 192.723(b)(2). We are concerned that a meter reader's sense of smell might change between annual certifications, or that the odorant level in the gas could change.

Moreover, since Consumers intends to provide some meter readers with gas monitoring equipment, the meter readers could use the equipment to meet the requirements of § 192.723(b)(2). The waiver does not explain why Consumers will not take the same action at least every 5 years on all interior piping and meters.

Therefore, we object to the waiver, and under 49 U.S.C. 60118(d), the Commission's action granting the waiver is stayed. Within 90 days, the Commission may appeal this matter in writing and request an opportunity for a hearing. We will consider any additional information you submit in deciding whether to withdraw our objection.

Sincerely,
Stacey L. Gerard
Associate Administrator for Pipeline Safety